

# Natural Resources Fact Sheet

## Rare Marsh-Nesting Birds of Virginia's Coastal Plain

### Marsh-Nesting Birds

Several rare birds in Virginia depend on marshes for resting, nesting, and feeding habitat. The King Rail, Virginia Rail, Black Rail, and Least Bittern all nest exclusively in marshes. In Virginia's coastal plain, the Northern Harrier nests in salt and brackish marshes. Other rare birds known to nest in marshes or marsh-upland transitional zones include the Sedge Wren, Henslow's Sparrow, Black Duck, and Boat-tailed Grackle. Many popular field guides provide detailed descriptions and illustrations of all these birds.

### Marsh Habitat

In addition to providing habitat for marsh-nesting birds, marshes are great reservoirs of energy and nutrients and provide habitat for numerous plant and animal species. They are tremendous nurseries for marine life and are a source of nutrients for shellfish. Marsh vegetation controls soil and water runoff from upland areas, helping to protect rivers, bays and adjacent lands from flooding. Marshes also help control sedimentation, eutrophication, and pollution of waterways.

Generally, there are four kinds of marshes in the Coastal Plain: tidal salt marsh, tidal brackish marsh, tidal freshwater marsh, and inland freshwater marsh. Within these broad categories, more specific types can be distinguished, such as low and

high marshes in the tidal salt marsh. Each marsh type is associated with characteristic plants which are adapted to prevailing conditions including frequency of flooding by tides and levels of salt in the water.

### Marsh Distribution

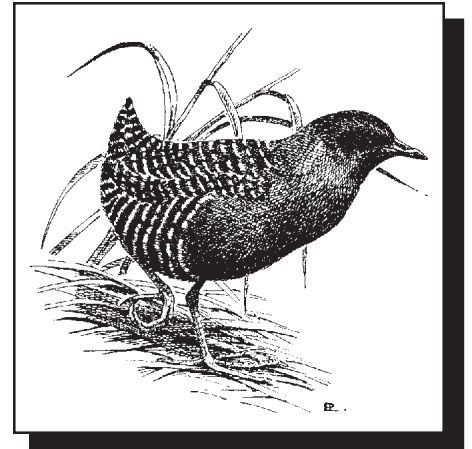
Salt marshes are found along the coast behind barrier islands and beaches, and the lower portion of the Chesapeake Bay. Brackish marshes occur along the edges of estuaries and tidal rivers and streams. Freshwater marshes occur on the tidal rivers and streams above the influence of salt water, and may also be found inland around ponds, lakes, rivers, and streams. In Virginia, most marsh habitat is found in the coastal plain.

### Marsh-Nesting Bird Ecology

A lack of trees and tall shrubs means that marsh-nesting birds must build their nests close to or on the ground, on a clump of emergent vegetation, or in the limbs of a low shrub. Nesting season for all these birds falls within a period from late April through August.

The Least Bittern, the smallest member of the heron family, nests in brackish and freshwater tidal marshes. The male builds the nest, making a rimless platform of sticks and emergent vegetation on the ground or in a low shrub.

The King Rail and the Black Rail nest in freshwater as well as brack-



### Black Rail

(Illustration from *Bird Studies at Old Cape May* by Witmer Stone, Dover Publications, Inc., New York. Used with permission)

ish marshes. Although both are rails, they hardly resemble one another. The King Rail is a cinnamon-brown, crow-sized bird with a long, slightly decurved bill. The secretive, sparrow-sized Black Rail is blackish-grey with a chestnut patch on its back; it has a short conical bill. The King Rail builds a basket-like nest on a hummock six to eight inches above the water. The Black Rail weaves a coil of soft grass blades amid grasses 18-24 inches high.

The Northern Harrier is a rare resident in Virginia. Its main range is farther north and west extending to Alaska, across the Great Plains, and south to Baja California. Currently, there are 25-30 pairs known from the eastern counties of Virginia, although it is reported from other widely scattered counties in the state. Their flimsy nests of small



Department of Conservation & Recreation  
CONSERVING VIRGINIA'S NATURAL AND RECREATIONAL RESOURCES

For more information, contact  
the Department of Conservation and Recreation  
1500 E. Main Street, Suite 312, Richmond, VA 23219  
(804) 786-7951

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sticks, stems, and grasses are built on the ground or dried marsh vegetation.

All of these bird species take advantage of the rich offerings of the marsh habitat. The Black Rail feeds primarily on insects, but will also turn to seeds of grasses and sedges. The Least Bittern prefers fish, but is known to make a meal of small mammals, amphibians or insects. The Northern Harrier subsists largely on a diet of voles, supplemented by small birds, snakes, frogs, and carrion. The King Rail eats crustaceans, but may also eat seed.

### Conservation

Recent studies conducted in Virginia by the Center for Conservation Biology, College of William and Mary, suggest that the number of bird species found in a marsh is directly related to the size of the marsh. The minimum marsh size to support significant marsh bird communities appears to be between 10 and 15 acres. This information can help ensure environmentally sound planning and development occur in the vicinity of these wetlands.

The primary threat common to marsh nesting birds is loss or degradation of marsh habitat. In the period from 1956 to 1977, Virginia experienced a six percent loss of its wetlands. The impact to natural marsh habitat was much greater than this figure suggests, since part of the loss was offset by a gain in freshwater ponds. Although they are wetlands, man-made ponds are no substitute for the diversity and productivity offered by natural marshes.

Often where marsh vegetation is disturbed by heavy equipment or water chemistry changes in a marsh common reed, a tall wetland grass, invades marsh habitats. Once established, common reed aggressively displaces native vegetation and produces large stands which have little value to wildlife.

The following are a few conservation measures which can help protect marshes and the wildlife they support. Landowners should try to maintain semi-forested buffers along marsh and upland interfaces and follow best management practices aimed at maintaining and restoring water quality in wetland areas. Ac-

tivities such as construction, recreation, and environmental education should be scheduled to avoid the marsh bird nesting period from April 15 to the first of September.

For more information on conservation of marsh nesting birds, contact Virginia Department of Conservation and Recreation, Center for Conservation Biology at the College of William and Mary, and the National Estuarine Research Reserve-Virginia Institute of Marine Science.

To learn more about Virginia's rare plant and animal species and rich biological communities write to the following: *Plant and Insect Species* - Virginia Department of Agriculture and Consumer Services, Office of Plant Protection, P.O. Box 1163, Richmond, Virginia 23209; *Animal Species* - Virginia Department of Game and Inland Fisheries, P.O. Box 11104, Richmond, Virginia 23230; *Plants, Animals, or Biological Communities* - Virginia Department of Conservation and Recreation, Division of Natural Heritage, Main Street Station, 1500 East Main Street, Suite 312, Richmond, Virginia 23219.



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